Fact Sheet

NPDES Permit Number: AK-005316-3
Date: March 1999
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The U.S. Environmental Protection Agency (EPA) Plans To Issue A Wastewater Discharge Permit To:

Prince Creek Mining
Alvin H. Agoff

This will also serve as a notice that the
STATE of ALASKA proposes to CERTIFY
this permit

EPA Proposes NPDES Permit Issuance.
EPA proposes to issue a *National Pollutant Discharge Elimination System* (NPDES) Permit to Alvin H. Agoff for a gold hydraulicking operation near Flat, Alaska. The draft permit sets conditions on the discharge - or release - of pollutants from the operation into Bonanza Creek.

This Fact Sheet includes:
- information on public comment, public hearing, and appeal procedures
- a description of the facility, its history and current discharge and treatment system
- a description of proposed effluent limitations , monitoring requirements, and other conditions
- a map and description of the discharges

The State of Alaska certification.

EPA has requested that the Alaska Department of Environmental Conservation (ADEC) certify the NPDES permit for this operation under section 401 of the Clean Water Act.

EPA invites comments on the proposed permit.

EPA will consider all substantive comments before issuing a final permit. Those wishing to comment on the proposed permit may do so in writing by the expiration date of the Public Notice. After the Public Notice expires, and all comments have been considered, EPA's regional Office of Water Director will make a final decision regarding permit issuance.

Persons wishing to comment on State Certification should submit written comments by the public notice expiration date to the Alaska Department of Environmental Conservation, 610 University Avenue, Fairbanks, Alaska 99709.

If no substantive comments are received, the tentative conditions in the proposed permit will become final, and the permit will become effective upon issuance. If comments are received, the permit will become effective 30 days after the issuance date, unless a request for an evidentiary hearing is submitted within 30 days.

Documents are available for review.

The proposed NPDES permit and related documents can be reviewed at EPA's Regional Office in Seattle between 8:30 a.m. and 4:00 p.m., Monday through Friday. This material is also available for inspection and copying at the following places in Alaska:

USEPA Alaska Operations Office
Federal Building, Room 537
222 West 7th Avenue
Anchorage, Alaska 99513-7588
Telephone: (800) 781-0983 (Within Alaska)

USEPA Alaska Operations Office
410 Willoughby Avenue, Suite 100
Juneau, Alaska 99801
Telephone: (907) 586-7619

ADEC Watershed Development Program
Air and Water Quality Division
610 University Avenue
Fairbanks, AK 99709
Telephone: (907) 451-2141

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I. APPLICANT

NPDES Permit No.: AK-005316-3

Mailing Address:
P.O. Box 2791
Palmer, Alaska 99645

Facility Location:
near Flat, Alaska

Facility contact: Alvin H. Agoff

II. FACILITY ACTIVITY

Hydraulicking consists of the loosening of material by water delivered under pressure through a hydraulic giant (monitor). Overburden removal and mining can both be done by hydraulicking. The material then flows, usually by gravity, to the sluice box if the overburden is to be processed with the mineral bearing material below. Overburden consisting of barren material may be directed away from the sluice box so that only mineral bearing material is processed in the sluice.

Sluicing is a common gold recovery method. A sluice is a long, sloped trough into which water is directed to effectuate separation of gold from ore. A slurry of water and ore flows down the sluice and the gold, due to its relatively high density, is trapped in riffles along the sluice.

III. RECEIVING WATER

The receiving water is the waters of Bonanza Creek which is classified in 18 AAC 70 as Classes (1)(A), (B), (C), and (D) for use in drinking, culinary and food processing, agriculture, aquaculture, and industrial water supply; contact and secondary recreation; and growth and propagation of fish, shellfish, other aquatic life, and wildlife.

IV. EFFLUENT LIMITATIONS

“Permit writers must consider the impact of every proposed surface water discharge on the quality of the receiving water. Water quality goals for a water body are defined by State water quality standards. A permit writer may find, by analyzing the effect of a discharge on the receiving water, that technology-based permit limits are not sufficiently stringent to meet these water quality standards. In such cases, the Clean Water Act and EPA regulations require development of more stringent, water quality-based effluent limits designed to ensure that water quality standards are met.” (1996, U.S. EPA NPDES Permit Writer’s Manual, p87.)

The hydraulicking operations that have applied to EPA for permit coverage all indicate that they are no discharge facilities except in the case of a precipitation

related event. These facilities have large settling ponds to handle the volume of material involved in the process. For these reasons EPA has determined that numeric effluent limitations are not necessary. Instead, a "no discharge" provision with a storm exemption and Best Management Practices (BMPs) have been developed. These BMPs are supplemented by required effluent monitoring in the event of a discharge. The frequency of effluent monitoring will indicate whether the design size requirement should be reevaluated in future permitting actions.

Monitoring Requirements

Section 308 of the Clean Water Act and the federal regulations at 40 CFR § 122.44(i) require that permits include monitoring to determine compliance with permit requirements. Monitoring may also be required to gather data for future effluent limitations or to monitor effluent impacts on receiving water quality. The permittee is responsible for conducting the monitoring and for reporting results to EPA.

The permit requires one turbidity sample of the discharge and upstream of the discharge point during a discharge event. One sample of the discharge for arsenic is also required. Settleable solids must be measured once per day of discharge and daily visual inspection for turbidity is required if the discharge lasts more than one day. The required daily facility inspection to ensure compliance with the BMPs in Permit Part II. should assure that the facility will discharge only in those instances when precipitation is in excess.

The reporting requirement is based on 40 CFR § 122.48 which is specified in the permit as a submission of an Annual Report (AR) by November 30th of each year.

Best Management Practices (BMP) Plan

BMPs are measures that are intended to prevent or minimize the generation and the potential for the release of pollutants from industrial facilities to the waters of the United States through normal operations and ancillary activities.

Pursuant to Section 402(a)(1) of the Clean Water Act, development and implementation of BMP Plans may be included as a condition in NPDES permits. Section 402(a)(1) authorized EPA to include miscellaneous requirements in permits on a case-by-case basis which are deemed necessary to carry out the provision of the Act. BMPs, in addition to numerical effluent limitations, are required to control or abate the discharge of pollutants in accordance with 40 CFR § 122.44(k). Most of the BMPs are part of the Placer Mining Effluent Limitation Guidelines found at 40 CFR 440 Subpart M.

The proposed permit requires compliance with the following BMPs:

A. The flow of surface waters (i.e., creek, river, or stream) into the plant site shall

be interrupted and these waters diverted around and away to prevent incursion into the plant site.

The intent of this BMP is to avoid contamination of nonprocess water, reduce the volume of water requiring treatment and maximize the retention time and the settling capacity of the settling ponds. The diversion must totally circumvent any gold recovery units, treatment facilities, etc.

B. Berms, including any pond walls, dikes, low dams, and similar water retention structures shall be constructed in a manner such that they are reasonably expected to reject the passage of water.

This BMP is required to assure that water retention devices are constructed appropriately. This may be achieved by utilizing on-site material in a manner that the fine sealing material (such as clays) are mixed in the berms with coarser materials. Berms should be toed into the underlying earth, constructed in layers or lifts and each layer thoroughly compacted to ensure mechanical and watertight integrity of the berms. Other impermeable material such as plastic sheets or membranes may be used inside the berms when sealing fines are unavailable or in short supply. The side slope of berms should not be greater than the natural angle of repose of the materials used in the berms or a slope of 2:1, whichever is flatter.

C. Measures shall be taken to assure that pollutant materials removed from the process water and wastewater streams will be retained in storage areas and not discharged or released to the waters of the United States.

The intent of this BMP is to ensure that the investment in pollution control pay the maximum benefit in terms of reduced pollutant volumes reaching water of the United States. These measures may include location of the storage ponds and storage areas to assure that they will not be washed out by reasonably predictable flooding or by the return of a relocated stream to it original stream bed. Materials removed from settling ponds should be placed in bermed areas where liquids from the materials cannot flow overland to waters of the United States. It may be necessary, in some cases, to collect such liquids and pump or divert them back to the settling pond for treatment. This requirement applies both during the active mining season and at all other times until reclamation is completed.

D. The amount of new water allowed to enter the plant site for use in material

processing shall be limited to the minimum amount required as makeup water.

This is required to assure that the amount of wastewater that is discharged is kept to a minimum.

E. All water control devices such as diversion structures and berms and all solids retention structures such as berms, dikes, pond structures, and dams shall be reasonably maintained to continue their effectiveness and to protect from failure.

The provisions of this BMP will ensure that water control devices are adequately maintained. This specifies that structures should be inspected on a regular basis for any signs of structural weakness or incipient failure. Whenever such weakness or incipient failure becomes evident, repair or augmentation of the structure to reasonably ensure against catastrophic failure shall be made immediately.

F. The operator shall take whatever reasonable steps are appropriate to assure that, after the mining season, all unreclaimed mine areas, including ponds, are in a condition which will not cause degradation to the receiving waters over those resulting from natural causes.

The purpose of this requirement is to assure that all reasonable measures are taken to decrease the amount of pollutants being discharged to waters of the United States.

V. OTHER PERMIT CONDITIONS

Oil Spill Requirements

Section 311 of the Act prohibits the discharge of oil and hazardous materials in harmful quantities. The operator shall maintain fuel handling and storage facilities in a manner which will prevent the discharge of fuel oil into the receiving waters. A Spill Prevention Control and Countermeasure Plan (SPCC Plan) shall be prepared and updated as necessary in accordance with provisions of 40 CFR Part 112 for facilities storing 660 gallons in a single container above ground, 1320 gallons in the aggregate above ground, or 42,000 gallons below ground.

The Permittee shall indicate on the DMR if an SPCC Plan is necessary and in place at the site and if changes were made to the Plan over the previous year.

Endangered Species Act

The Endangered Species Act requires federal agencies to consult with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS)

if their actions could beneficially or adversely affect any threatened or endangered species. EPA sent a letter to the U.S. Fish and Wildlife Service and to the National Marine Fisheries Service on March 18, 1999, requesting a species list for the area of the facility.

Essential Fish Habitat (EFH)

The 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act set forth a number of new mandates for NMFS, regional fishery managment councils and other federal agencies to identify and protect important marine and anadromous fish habitat. The action agency needs to make a determination Federal actions that may adversely impact EFH. Because this permit is a “no discharge” permit, EPA has determined that no adverse effect to EFH would result from the issuance of this permit.

State Certification

Section 401 of the Clean Water Act requires EPA to seek certification from the State that the permit is adequate to meet State water quality standards before issuing a final permit. The regulations allow for the State to stipulate more stringent conditions in the permit, if the certification cites the Clean Water Act or State law references upon which that condition is based. In addition, the regulations require a certification to include statements of the extent to which each condition of the permit can be made less stringent without violating the requirements of State law.

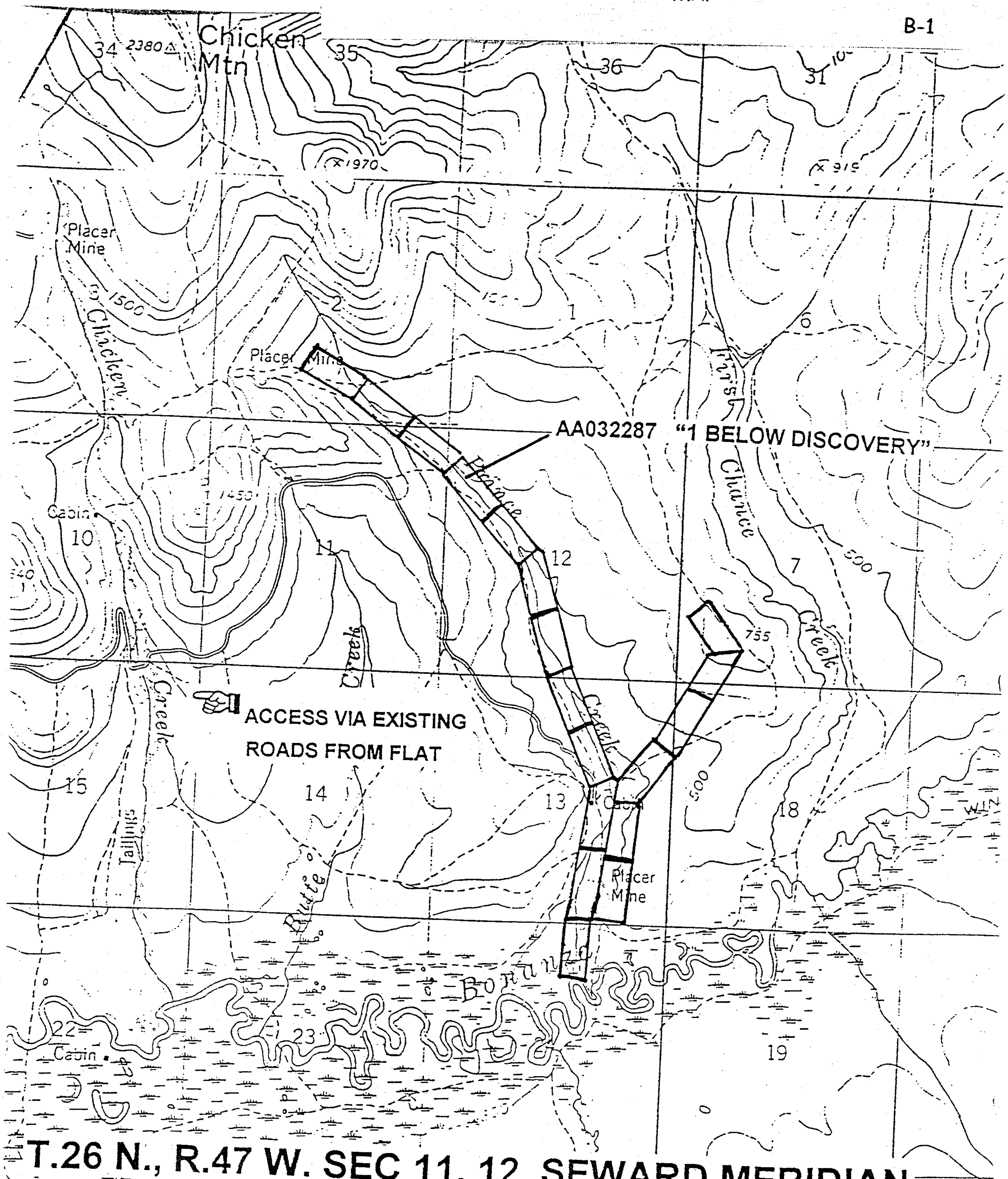
The draft permit has been sent to the State to begin the final certification process. If the state authorizes different or additional conditions as part of the certification, the permit may be changed to reflect these conditions.

Permit Expiration

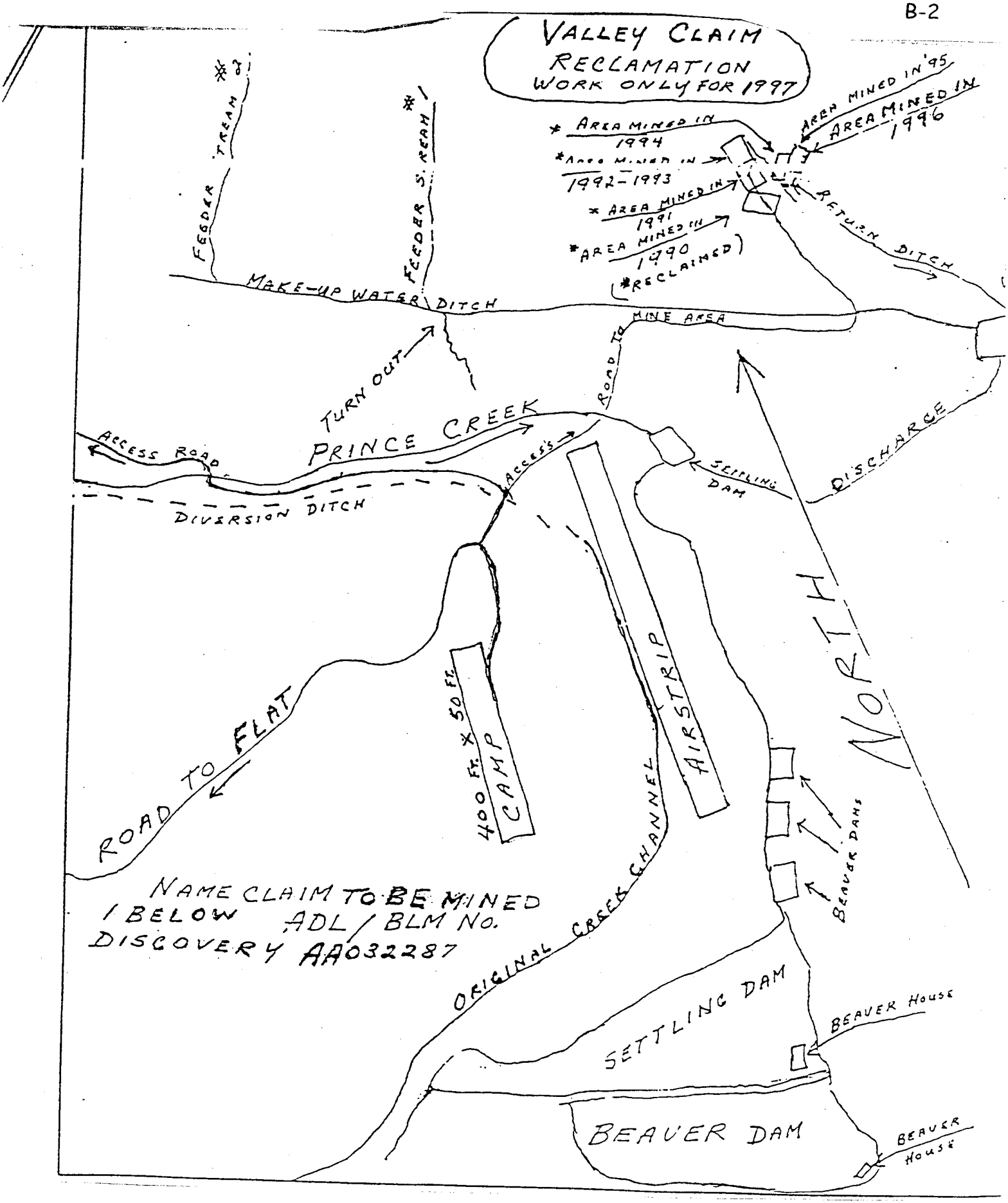
This permit will expire five years from the effective date of the permit, but may be administratively extended if the conditions of 40 CFR §122.6(a) are met.

APPENDIX A -- LIST OF ACRONYMS

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
AR	Annual Report
AWQS	Alaska Water Quality Standard
BMP	Best Management Practices
CFR	Code of Federal Regulations
cfs	Cubic feet per second
CWA	Clean Water Act
EPA	Environmental Protection Agency
FR	Federal Register
gpm	gallons per minute
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Unit
TSD	Technical Support Document for Water Quality-based Toxics Control
USC	United States Code
USGS	United States Geological Survey



T.26 N., R.47 W. SEC 11, 12, SEWARD MERIDIAN
IDITAROD B-4 QUAD MAP


VALLEY CLAIM
RECLAMATION
WORK ONLY FOR 1997
* AREA MINED IN 1994
* AREA MINED IN 1992-1993
* AREA MINED IN 1991
* AREA MINED IN 1990 (RECLAIMED)
AREA MINED IN '95
AREA MINED IN 1996
RETURN DITCH
FEEDER STREAM #1
FEEDER STREAM #2
MAKE-UP WATER DITCH
TURN OUT
ROAD TO MINE AREA
ACCESS ROAD
PRINCE CREEK
ACCESS
DIVERSION DITCH
SETTLING DAM
DISCHARGE
NORTH
400 Ft. X 50 Ft. CAMP
AIRSTRIP
ROAD TO FLAT
BEAVER DAMS
NAME CLAIM TO BE MINED BELOW
ADL / BLM No.
DISCOVERY AA032287
ORIGINAL CREEK CHANNEL
SETTLING DAM
BEAVER HOUSE
BEAVER DAM
BEAVER HOUSE

APPENDIX C -- BASIS FOR EFFLUENT LIMITATIONS

Technology-based Limitations: Best Professional Judgement (BPJ) Determination

1. EPA has determined that a no discharge requirement with a storm exemption and BMPs should serve as a basis for BAT/BCT effluent limitations. This determination is based on the following considerations:

   a. Age of equipment and facilities, processes involved.

      Regardless of the age of the facilities, hydraulicking operations operate similarly. Large settling ponds are incorporated into the process to handle the large amounts of water and material used.

   b. Engineering aspects of the application of various types of control techniques; process changes

      Each of the four hydraulicking operations that have submitted permit application have indicated that the only time a discharge would occur is precipitation related. At this time, no other potential treatment methods are being considered as a basis for BAT at this particular facility.

   c. Cost Considerations

      Since Region 10's determination that the currently utilized treatment technology will be utilized as BAT/BCT treatment for this facility, there is no incremental cost involved in attaining the technology-based limits of the proposed permit.

2. Pursuant to the Act Section 402(a)(2) [40 CFR 122.44(k)(3)], BMPs are being proposed in the draft permit. These practices are reasonably necessary to carry out the Act’s goals of eliminating the discharge of pollutants as much as practicable and to maintain water quality.

Water Quality-based Limitations

Section 301(b)(1) of the Act requires the establishment of limitations in permits necessary to meet water quality standards by July 1, 1977. All discharges to state waters must comply with state and local coastal management plans as well as with state water quality standards, including the state's antidegradation policy. Discharges to state waters must also comply with limitations imposed by the state as part of its coastal management program consistency determination and of its certification of NPDES permits under section 401 of the Act.

The NPDES regulations at 40 CFR 122.44(d)(1) require that permits include water

quality-based limits which "Achieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality."

Section 308 of the Clean Water Act

Under Section 308 of the Act and 40 CFR § 122.44(i), the Director must require a discharger to conduct monitoring to determine compliance with effluent limitations and to assist in the development of effluent limitations. 40 CFR § 122.44(i)(2) allows flexibility in determining the frequency of reporting.

APPENDIX D -- REFERENCES

EPA, NPDES Permit Writer's Manual. Office of Water, Office of Wastewater Management, Permits Division. Washington, DC. 20460; EPA-833-B-96-003, December 1996, 220pp.

EPA, Technical Support Document for Water Quality-based Toxics Control. Office of Water Enforcement and Permits, Office of Water Regulations and Standards. Washington, DC, 20460; EPA/505/2-90-001, March 1991, 145pp.

Society of Mining Engineers, Mining Engineering Handbook, 1973.